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Masahiro MINOWA

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AND NETWORK SYSTEM FOR
RECEIVING AND PLACEMENT
PROCESSING OF ADVERTISING
INFORMATION

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Commissioner for Patents
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Dear Sir:

Enclosed herewith is a certified copy of the English translation of Japanese Patent Application No. 2000-087280 (J0077806) filed March 27, 2000, from which priority is claimed under 35 U.S.C. § 119 and Rule 55.

Acknowledgment of the priority document(s) is respectfully requested to ensure that the subject information appears on the printed patent.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

By: 

Dariush G. Adli

Registration No. 51,386

Attorney for Applicant(s)

Date: June 13, 2005

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701



CERTIFICATION OF TRANSLATION

I, Clifford E. Bender, having my place of business at

1432 Wilbur Rd., Medina, OH 44256,

hereby certify that the attached document is a true and accurate translation of

Japanese Application Number 2000-087280.

Dated this 12th day of MAY, 2005 at GRANGER, OH U.S.A.


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[Inventor]

[Address or location] Seiko Epson Corporation, 3-3-5 Owa,
Suwa-shi, Nagano
[Name] MINOWA Masahiro

[Applicant]

[Identification number] 000002369
[Address or location] 2-4-1 Nishi-shinjuku, Shinjuku, Tokyo
[Name or corporation] Seiko Epson Corporation
[Selected representative] YASUKAWA Hideaki

[Agent]

[Identification number] 100093388
[Attorney]
[Name or corporation] SUZUKI Kisaburo
[Contact phone number] 0266-52-3139

[Appointed Agent]

[Identification number] 100095728
[Attorney]
[Name or corporation] KAMIYANAGI Masataka

[Appointed Agent]

[Identification number] 100107261
[Attorney]
[Name or corporation] SUZAWA Osamu

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[Title of the invention] Network system, advertising information receiving and placement processing method, and a data storage medium recording the method

[Scope of the claims]

[Claim 1] A network system having a server system to which a client system can connect via the Internet, and a store system connected to a store register having at least a display device and a printing device, said network system characterized by comprising the following:

(a) means for storing an application page containing an advertising placement application form sent to the client system;

(b) means for sending the application page containing the application form to the client system in response to a request from the client system;

(c) means for receiving and storing input information containing advertising placement information input according to the application form returned from the client system;

(d) means for distributing specific data in the input information to the store system specified by the client system; and

(e) control means for controlling displaying and printing the advertising placement information on the store system receiving the distribution.

[Claim 2] A network system as described in claim 1, characterized by further comprising the following:

(f) means for calculating an advertising placement fee based on the input information;

(g) means for storing and sending the calculated fee to the client system that returned the advertising placement application; and

(h) means for confirming fee payment.

[Claim 3] A network system as described in claim 1 or 2, wherein the application page contains a plurality of place names, and a check box enabling place name selection by the client system.

[Claim 4] A network system as described in claim 1 or 2, wherein the application page contains a plurality of branch store names or subscriber store names enabled for advertising placement, and a check box enabling store name selection by the client system.

[Claim 5] A network system as described in any one of claims 1 to 4, wherein the application page enables specifying a target for whom the advertising placement information is presented.

[Claim 6] A network system as described in any one of claims 1 to 5, wherein means (d) for distribution to said store system is characterized by distribution via a central computer.

[Claim 7] A network system as described in any one of claims 1 to 6, wherein said store system or central computer is connected to the server system via the Internet.

[Claim 8] An advertising information receiving and placement processing method for a network system having a server system to which a client system can connect via the Internet, and a store system connected to a store register having at least a display device and a printing device, said processing method characterized by comprising the following processing steps:

(a) a step for sending an application page containing an advertising placement application form in response to a request from the client system;

(b) a step for receiving and storing input information containing advertising placement information input according to the application form sent from the client system;

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(c) a step for calculating an advertising fee based on the input information;

(d) a step for sending to the client system a payment specification form containing the calculated fee;

(e) a step for confirming fee payment;

(f) a step for registering in the store system advertising information for which payment has been confirmed; and

(g) a step for outputting by means of the display device or printing device of the store register.

[Claim 9] An advertising information receiving and placement processing method as described in claim 8, wherein step (e) includes a step for confirming credit card validity.

[Claim 10] An advertising information receiving and placement processing method as described in claim 8 or 9, wherein step (f) is characterized by containing a step for sending specific information in the input information to the store system specified by the input information.

[Claim 11] An advertising information receiving and placement processing method as described in claim 8 or 9, wherein step (f) is characterized by containing a step for confirming a corresponding store system from a desired advertising area specified by the input information, and a step for sending specific information in the input information to the confirmed store system.

[Claim 12] An advertising information receiving and placement processing method as described in any one of claims 8 to 11, wherein step (f) is characterized by containing a step for distribution by way of a central computer connected to a plurality of store systems.

[Claim 13] An advertising information receiving and placement processing method as described in any one of claims 8 to 11, wherein step (f)

is characterized by containing a step for sending specific information in the input information to said store system by way of the Internet.

[Claim 14] A computer-readable storage medium for recording steps in an advertising information receiving and placement processing method as described in claim 8 to 13.

[0001]

[Technical field of the invention]

The present invention relates to an advertising placement system, and to a placement application receiving and placement processing method, for printing by way of the Internet advertisements, introductions, event announcements, and other types of information (referred to below as "advertising information") to, for example, a receipt or customer service number ticket issued by a POS terminal, store register, or queuing number issuing device (referred to below as a "store register") in a bank, securities company, or hospital, for example.

[0002]

[Prior art]

Advertisement-placing POS systems that can print advertising and other information input from a data entry terminal, for example, located in a store such as a convenience store as additional information on the receipt issued by the POS system have been proposed. Such systems can directly provide individual local residents with advertisements and information about local events, such as go tournaments or karaoke singing contests. As lifestyles change, such systems could in the near future become an extremely effective advertising medium.

[0003]

[Problem to be solved by the invention]

However, if it is desired to place an advertisement with this conventional technology, the store where the data input terminal is located must be visited in order to apply for placing an advertisement using the data input terminal. The application process is therefore bothersome. In addition, the desired advertising placement information must be input

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during the application process, and the information that can be placed in the advertisement could be limited depending upon the capabilities of the data input terminal, such as when image data is input. Furthermore, both money and space are needed to install the data input terminal for accepting advertising applications. The data input terminals are desirably located in as many stores as possible if the convenience of the advertiser is considered, and the associated cost and space requirements are thus a significant burden for the system introducer.

[0004]

The present invention was conceived with consideration for this problem, and an object of the present invention is to provide an advertising placement system for accepting advertising placement applications by way of the now widely available Internet, and printing the advertising information by way of a store register in branches (including stores) desired by the advertiser or subscriber stores, and a method for accepting placement applications and placing advertisements.

[0005]

It should be noted that as used in this specification a "branch" includes branches of a bank, securities company, or other organization, branches of a supermarket, department store, or other type of store, and affiliated stores, such as convenience stores, interconnected by a specific contract (referred to as convenience stores below). Furthermore, a "store register" as used in this specification includes not only POS terminals connected to a POS system used in a store, but other types of printed matter issuing devices such as queuing number issuing devices, transaction statements issued by automated transaction machines (ATMs) and receipt issuing devices such as issued in a parking lot. [sic]

[0006]

[Means for solving the problem]

To achieve the above objects, the present invention provides the following means. A network system according to a first embodiment of the present invention is a network system having a server system connectable from a client system via the Internet, and a store system connected to a store register having at least a display device and a printing device, the

network system characterized by comprising: (a) means for storing an application page containing an advertising placement application form sent to the client system; (b) means for sending the application page containing the application form to the client system in response to a request from the client system; (c) means for receiving and storing input information containing advertising placement information input according to the application form returned from the client system; (d) means for distributing specific data in the input information to the store system specified by the client system; and (e) control means for controlling displaying and printing the advertising placement information on the store system receiving the distribution.

[0007]

Thus comprised, an application for placing an advertisement can be made quite easily because an application can be made by accessing the application server system over the Internet from a PC at home, for example. In addition, because the advertising placement information on the received application can be distributed to store systems via a LAN, WAN, or the Internet, for example, it can be immediately distributed to the necessary stores so that placing the advertisement can begin quickly.

[0008]

A network system according to a second embodiment of the present invention further comprises (f) means for calculating an advertising placement fee based on the input information; (g) means for storing and sending the requested fee to the client system that applied; and (h) means for confirming fee payment.

[0009]

Thus comprised, the client can quickly determine the fee according to the advertising area and advertising information. In addition, the advertising information can be distributed after confirming payment of the advertising fee.

[0010]

The application page used in a network system according to a third embodiment of the present invention is characterized by containing a plurality of place names, and a check box enabling place name selection by

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the client system. Thus comprised, extremely effective placement of advertisements is possible because the applicant can select only the necessary regions from the plural store systems connected to the network. Furthermore, the necessary data can be distributed immediately to any area so long as it is connected to the network, and it is therefore possible to specify the advertisement region quickly and extremely easily and advertisements can be placed in the selected areas.

[0011]

The application page used in a network system according to a fourth embodiment of the present invention contains a plurality of branch store names or subscriber store names enabled for advertising placement, and a check box enabling store name selection by the client system.

Thus comprised, the advertising placement area can be specified with almost pinpoint accuracy, and more economical, effective advertising is possible. Specifying an advertising area as in these third and fourth embodiments of the invention is extremely beneficial not only for the advertiser but also for the advertising placement service because limited advertising space can be efficiently used.

[0012]

The application page used in a network system according to a fifth embodiment of the present invention enables specifying a target for whom the advertising placement information is presented. This embodiment also enables effective advertising by the party desiring to advertise, and at the same time enables the service provider to efficiently use advertising space.

[0013]

In a network system according to a sixth embodiment of the present invention means (d) for distribution to said store system is characterized by distribution via a central computer. A typical POS system manages a plurality of store systems en masse by means of a central computer. It can therefore be more efficient to distribute specific data from the server system to the central computer, and distribute from there to the necessary store systems.

[0014]

In a network system according to a seventh embodiment of the present invention the store system or central computer is connected to the server system via the Internet. This embodiment a store system is connected not only to the internal network, and can clearly distribute to external store systems connected via the Internet. Transmission to external systems via the Internet can be accomplished using an e-mail system, FTP, or other protocol.

[0015]

An eighth embodiment of the present invention is an advertising information receiving and placement processing method for a network system having a server system to which a client system can connect via the Internet, and a store system connected to a store register having at least a display device and a printing device, said processing method characterized by comprising: (a) a step for sending an application page containing an advertising placement application form in response to a request from the client system; (b) a step for receiving and storing input information containing advertising placement information input according to the application form sent from the client system; (c) a step for calculating an advertising fee based on the input information; (d) a step for sending to the client system a payment specification form containing the calculated fee; (e) a step for confirming fee payment; (f) a step for registering in the store system advertising information for which payment has been confirmed; and (g) a step for outputting by means of the display device or printing device of the store register.

[0016]

Step (e) in a advertising information receiving and placement processing method according to a ninth embodiment of the present invention is characterized by including a step for confirming credit card validity. Such validity confirmation can be accomplished using a CAT system or other existing system.

[0017]

Step (f) in a advertising information receiving and placement processing method according to a tenth embodiment of the present invention is characterized by including a step for sending specific

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information in the input information to the store system specified by the input information. It is therefore possible to limit the store systems to which advertising information is sent, thus preventing unnecessary distribution, and reducing the computer load and traffic.

[0018]

Step (f) in a advertising information receiving and placement processing method according to an eleventh embodiment of the present invention is characterized by including a step for confirming a corresponding store system from a desired advertising area specified by the input information, and a step for sending specific information in the input information to the confirmed store system. Correct distribution to the specified area is thus possible.

[0019]

Step (f) in a advertising information receiving and placement processing method according to a twelfth embodiment of the present invention is characterized by including a step for distribution by way of a central computer connected to a plurality of store systems.

[0020]

Step (f) in a advertising information receiving and placement processing method according to a thirteenth embodiment of the present invention is characterized by including a step for sending specific information in the input information to said store system by way of the Internet.

[0021]

[Description of preferred embodiments]

The preferred embodiments of the present invention are described next below with reference to the accompanying figures.

[0022]

Fig. 1 shows a first embodiment of a network system used in the present invention. In this figure reference numeral 1 is an application server system (referred to below as application server 1) for receiving applications for advertising placement, and reference numeral 2 is a central system. The central system 2 indicates a system that is connected to a point-of-sale management system (referred to below as a POS system) in a

convenience store, for example, and provides central management of data collected from the POS system. It should be noted that the central computer 2 together with the store-side devices is generally collectively referred to as a POS system, but in this specification a POS system is used to mean the store-side system separate from the center system as described above.

[0023]

Reference numerals 3a to 3e are store systems (referred to below as store system 3). Store system 3 is a system for managing store registers (further described below) for issuing receipts, for example, on which the advertising information is placed. Reference numerals 4 and 6 are servers connected to the Internet 10. Reference numerals 5a to 5e are client systems (abbreviated as client 5 below), and mean a computer system on the side applying to have an advertisement placed.

[0024]

The client 5 accesses application server 1 by way of the Internet 10 and server 4 connected to the Internet 10. The client 5 can be a personally owned personal computer ("PC" below), or a computer connected to the network of a particular organization, such as a company. The server 4 to which client 5 connects can be an Internet service provider, or a server owned by the client 5.

[0025]

The application server 1 transmits an application form in response to a request from client 5. Based on the obtained application form, client 5 returns specific application information and the advertising placement information. The application server 1 stores the received information and sends fee payment data (billing fee data) to the client 5.

[0026]

After confirming fee payment, for example, application server 1 distributes the advertising placement information and placement period management data, for example, to the store system 3 specified by client 5 by way of central system 2. It should be noted that while not shown in the figure direct distribution to store system 3 without passing through central system 2 is also possible by using a client-server system or other such in-house network system.

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[0027]

The store system 3 that received the advertising information, etc., prints the advertising placement information sent from application server 1 in addition to the normally printed information (such as the sales price of purchased items) to a receipt issued by the store during the period specified by the placement period management data. It should be noted that in addition to including POS systems such as used in convenience stores, department stores, supermarkets, and shopping malls, store system 3 also includes various types of systems for issuing particular printed matter to customers, including queuing number issuing systems used in banks and securities companies, for example.

[0028]

Application server 1 can distribute advertisement related information, including the received advertising placement information, via the Internet 10 to other subscriber store systems 7. A subscriber store can be any type of commercial enterprise, but particularly includes, for example, hospitals, pharmacies, and medium-size stores. In a hospital or pharmacy, for example, receipts, queuing number tickets, and other printed matter is issued by registers for calculating treatment fees and hospitalization charges, queuing number issuing devices for issuing queuing number tickets in the waiting order, and registers in pharmacies providing drugs according to a doctor's prescription. Store systems such as noted above, POS terminals used in subscriber store systems, for example, cash registers, and other devices such as queuing number issuing devices are collectively referred to in this invention as "store registers."

[0029]

Subscriber store systems can further be a large-scale system. In this case, advertisement related information can be sent from the application application server 1 via the Internet 10 to the subscriber store's central system 8, and distributed from there to individual store systems. It is therefore possible to place an advertisement by means of a massive number of store registers through the networks of plural corporations or organizations.

(Application server system)

Fig. 2 shows the basic configuration of an application server system 1. WWW server 11 stores a home page (not shown in the figure) and other Web pages, and sends the home page or other Web page to the client 5 in response to a request from the client 5. The home page can be captured and viewed using a browser or other application on the client 5. For example, assume that client 5 wants to view the home page and apply to place an advertisement. By setting up the page so that an application page transmission request is sent to the WWW server 11 when a particular place on the home page is clicked, for example, an application page transmission request is sent to the application server 1. When an application page request from client 5 is received, server engine 12 of the WWW server 11 sends the application page 13 to the client 5.

[0030]

The client 5 enters specific information according to application page 13, enters the advertising placement information, and sends it to the application server 1. When the data sent from client 5 is received, WWW server 11 of application server 1 passes the data to the application management server 20 or other server, and the application management server 20, for example, runs a particular process as necessary. The WWW server 11 and application management server 20, for example, can be linked in this case by way of a common gateway interface (CGI), for example.

[0031]

Pictures, photographs, and other bit information (referred to as images below) can also be received as the advertising placement information from client 5. Any method can be used for receiving image data. For example, image data can be sent as a file attachment to an e-mail message from client 5 received by a mail server 15. It is also possible to embed an ID and password for an FTP server 16 in the application page 13 so that the image file is sent by file transfer protocol (FTP) automatically to an FTP server 16 by operating the application page 13.

[0032]

A specific process is applied to data input according to the application page 13 procedure by the application managing means 21 of the application

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management server 20. Advertisement related information is stored respectively to a customer management storage means 22, received order storage means 23, and advertisement managing information storage means 25, and the advertising placement information is stored to placement information storage means 24. These storage means 22 to 25 are preferably stored as a database, but the individual files can be stored.

[0033]

The application managing means 21 calculates an advertising fee from the type, amount, advertising period, and advertising area of the advertising placement information, and sends a fee payment page to the client 5 via WWW server 11. The application managing means 21 confirms the application when the specified fee is paid, and finalizes storage to the storage means 22 to 25. When the specified fee is paid, application management server 20 sends the data needed for advertising, including the advertising information, advertising area, and advertising period, to the central system 2. The central system 2 then sends this data to the store systems 3 in the area specified by the client 5. In this case it is possible to specify distribution to only stores A, B, D, and F of store systems A to J. It should be noted that an example of a hierarchical connection to the central system is shown in Fig. 2, but a client-server system architecture is also possible. The network can also be either a local area network (LAN) or wide-area network (WAN).

[0034]

If there are subscriber store systems 7, 8 of an external advertising placement service not connected by the application server 1 and internal network, the data needed for advertising is transmitted via Internet 10. This transmission can be accomplished by the subscriber store systems 7, 8 periodically requesting file transmission from FTP server 16, or by application server 1 sending to the FTP server (not shown in the figure) of the subscriber store systems 7, 8. If these subscriber store systems 7, 8 are connected by a communications line other than the Internet, transmission by such communications line is also possible. In addition to these methods, transmission using a mail system is further possible.

(Client system)

An example of a client system 5 is shown in Fig. 3 and Fig. 4. Fig. 3 shows the appearance of a client system 5, and Fig. 4 is a function block diagram thereof. Client system 5 can be a general purpose PC used in the home, or a PC connected to an in-house corporate LAN. A client system 5 using a general purpose PC used in the home is described here.

[0035]

In a basic configuration, PC 30 has a keyboard 31, mouse 32, display 34, disk drive 36, and modem 37 connected thereto; a scanner 33 for capturing a bit image of a picture, a printer 35 for printing bit information and data processed by the PC 30, and other devices can also be connected.

[0036]

A CPU, memory, and various registers (not shown in the figure) are provided inside PC 30 with the basic operation thereof controlled by a general purpose operation system (OS). Windows and the Macintosh are typical of a general purpose OS. Various browsers 38 are generally loaded on such a client system 5, enabling an HTML screen to be obtained from WWW server 11 via Internet 10 and presented on display 34, for example. E-mail software (a mailer) 39 and FTP (file transfer protocol) software 40 are also standard programs provided as programs for connecting to the Internet.

[0037]

A browser 38, mailer 39, and FTP application 40 are standard software provided with a general purpose PC system. Sending and receiving data with an application server 1 via the Internet 10 from client system 5 is possible using these applications.

[0038]

Connecting to the Internet 10 from a home client system 5 generally requires a contracting with an Internet service provider enabling the client to connect to the provide via the telephone lines. Because digital/analog conversion, etc., is necessary to connect to a telephone line from a client system 5, connection to the telephone network is made using a modem 37. A DSU (digital line termination unit) and TA (terminal adapter) (not shown in the figure) are required to use ISDN.

[0039]

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A client system 5 having the above-noted functions as standard software can access application server 1 via the provider's server 4, and access a home page or advertisement application page 13 from WWW server 11. The captured page can be viewed by the browser 38 on display 34, and data entry using keyboard 31 according to the displayed form and pointing using mouse 32 are possible.

[0040]

If a particular place on the application page 13 sent from application server 1 is clicked on using the central system 2 when the required data entry is completed, or if accessing other necessary information is desired, particular data is sent to the application server 1 according to data linked to the place on the page 13. The application server 1 receiving this data then runs a particular process, such as transmitting a specified Web page, according to the data.

[0041]

With client system 5, a picture or photograph for placing in the advertisement can be captured using scanner 33 and stored as image data to disk drive 36 ("store" is used in this specification to mean storage to memory as well as recording to disk or CD). The stored image data can also be processed for the advertisement and stored as a file.

(Store system and store register)

An exemplary configuration of a store system 3 is shown in Fig. 5. This store system 3 comprises a store server 41 and a plurality of store registers 50a to 50c (referred to as store register 50 below) connected to the store server 41 of store system 3. It should be noted that a store server 41 is not necessarily provided in each store, and can be provided for a specific geographical area.

The various parts of store server 41 are controlled by CPU 42. Store server 41 communicates with central computer 2 through interface 44. Store server 41 also communicates with store register 50 through store register side interface 45. Store server 41 receives through interface 44 advertising placement information and advertising management data indicating specific conditions sent from central computer 2, and stores this information to hard disk or other storage device 43.

A product database can be stored to storage device 43. In this case, CPU 42 receives a product identification number sent from store register 50 through store register interface 45, and sends the price of that product through register interface 45 to store register 50.

[0042]

The store server 41 can send product sales information through interface 44 to the central computer, and can obtain stocking plans, updated product prices, as well as placement information that is not customer dependent, from central computer 2. Direct communication with application server 1 is also possible by connecting to a computer communication network using telephone lines, for example, through a network interface not shown in the figure. The store server 41 functions as a storage means for various data, and in conjunction with store register 50 functions as an advertising placement information printing control means.

[0043]

Note that while the configuration of store system 3 is shown in this example, subscriber store systems 7, 8 connect to the Internet 10 through a provider or other server 6 rather than connecting through interface 44 to central computer 2 (see Fig. 1).

[0044]

A convenience store (abbreviated [in the Japanese] as "konbini" below) POS terminal 51 is shown as an example of store register 50 according to the present invention in Fig. 6. POS terminal 51 has an operator keyboard 52, printer 53, and information selection device 54. When there is a purchase request from a customer in a convenience store, the customer's age, sex, and other customer information is first entered. This data is collected and analyzed by central computer 2 as marketing strategy information, such as for sales analysis. After entering the customer information, the purchased products are registered, and when all product registrations are completed, a receipt 70 having the purchased items, total price, and sales tax printed thereon is issued from printer 53 and passed to the customer.

[0045]

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It should be noted that a product registration as used herein means a process such as one whereby a bar code, etc., on the product is read to obtain the product price from the storage device 43 of store server 41, store the name, price, and quantity of the purchased product to storage device 43 or POS terminal 51, and subtract the purchased quantity from the inventory data.

[0046]

A store register 50 used in the present invention can further print advertising information to this receipt 70, making it possible to advertise by handing this receipt with a placed advertisement to the customer.

[0047]

POS terminal 51 in Fig. 6 differs from a conventional POS terminal in that it has information selection device 54. This is not essential to the present invention, but is a device enabling the customer to select one or a plurality of advertising information selections that the customer wants. The information selection device 54 has a display part and an input part so that the desired information can be selected using the input part from a list of information presented on the display part. The input part can be a touch screen on the screen of the display part, or can be a customer keyboard (not shown in the figure). It is also possible to have the customer tell the operator the numbers of the desired information so that the selections are entered from the operator keyboard 53 [sic]. A specific process is further described below.

[0048]

Fig. 7 is a block diagram showing a more detailed basic configuration of POS terminal 51. POS terminal 51 has operator keyboard 52, printer 53, information selection device 54, cash drawer 55, operator display 56, bar code reader 57 and card reader 58 connected to CPU 60, which controls each of these devices. CPU 60 communicates with store server 41 through interface 59.

[0049]

It should be noted that while a convenience store POS terminal is used as an example of store register 50 in Fig. 6 and Fig. 7, an accounting

register in a hospital or pharmacy can be used as store register 50 insofar as the device can register a sales transaction and issue receipt 70.

[0050]

As another example of store register 50, Fig. 8 shows a queuing number issuing device 65 such as used in a bank, securities company, or hospital. A queuing number ticket having a customer number is commonly issued in banks and hospitals, for example. It is often necessary to wait a relatively long time until one's number is called for service, particularly in a bank or hospital. If information about local events can be provided while customers are kept waiting, there is a strong possibility that the information will be read with interest. Placing advertisements on such queuing number tickets is therefore an extremely effective means of advertising.

[0051]

This queuing number issuing device 65 can also be comprised to automatically print only predetermined advertising information. However, as shown in Fig. 8, it is also possible to dispose a display part 66 and keyboard 67 to queuing number issuing device 65 so that the customer can select the information to print. A touch screen could be provided on display part 66 so that selections are made directly from the display part and the keyboard 67 can be omitted. The customer selects the desired information from the printable information displayed on display part 66. Customers waiting in line have available time with nothing to do, and it is therefore preferable to allow plural selections.

[0052]

A large-scale display 68 is shown in Fig. 8. People waiting for their turn in a waiting room can thus be informed that information is available. By providing such a display 68 in the waiting room, someone that is waiting and is interested in the information can use the queuing number issuing device 65 or other printing device (not shown in the figure) to obtain the desired information.

(Procedure for applying for an advertisement)

A procedure for applying to place an advertisement from client system 5 is described using Fig. 9, Fig. 10, and Fig. 11. Fig. 9 is a flow chart

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for describing an advertising placement application process using client system 5 (client 5 below) and application server system 1 (application server 1 below); Fig. 10 shows an exemplary application page 13 sent from application server 1; and Fig. 11 shows an exemplary transaction processing page 14.

[0053]

(Advertisement application process: (1) application page sending and receiving)

When the client 5 accesses the home page of application server 1 and applies from that home page to place an advertisement, the client 5 browser 38 requests the application server 1 to send the advertisement application page (S101). When the WWW server 11 of application server 1 receives this advertisement application page transmission request (S201 returns yes), it sends application page 13 to client 5 (S202). To simplify the following description it is assumed below that application page 13 is on the WWW server 11 and the application page is sent to the client 5 by WWW server 11 alone. It will be obvious that in reality the input data from client 5 must be received by application server 1. To accomplish these processes, interaction by programs on the WWW server 11 and other servers 15, 16, 20 is enabled by a common gateway interface (CGI), and application page 13 is sent to client 5.

[0054]

When client 5 receives the application page 13 sent from application server 1 (S102), the browser 38 on client 5 displays the application page 13 on display 34. Fig. 10 is an example of a display screen.

[0055]

(Advertisement application process: (2) input to the application page and sending input data)

The customer making the application enters specific information on the form when the application page 13 is displayed (S103). Note that this application page 13 is an example, and other information can be requested or some of the entry items can be deleted.

[0056]

First, the customer making the application enters customer information 81 such as the name, address, telephone number, and e-mail address according to the form of the application page 13 displayed on the screen. The e-mail address is used for various contacts from the advertising placement service provider. In a typical example the e-mail address is used for contact confirming the application, and sending a bill and receipt for fees.

[0057]

Next, advertisement managing information 82 is entered. This advertisement managing information 82 includes, for example, specifying the advertising region, specifying the advertising period, and other such information, as well as specifying the advertising target. The advertising region can be specified by indicating individual store names, or specific regions could be identified for selection. A selection box containing a list of the selectable store names or regions that can be selected preferably appears when check box 84 is pointed to using a pointing device (such as the pointer of a mouse) for specifying a store name or specify a region.

[0058]

Advertising target refers to a customer receiving a receipt, and more efficient placement of advertisements can be achieved by identifying according to the type of advertisement the targets for whom a particular advertisement is placed on the printed receipt. This is beneficial both for the advertiser and for the advertising placement service provider. The advantage for the advertiser is that the advertising hit ratio is increased by providing advertising information to identified targets. On the other hand, identifying particular targets offers the advertising service provider the advantage of being able to effectively use the available advertising placement space. In other words, advertising media according to the present invention can only use the extremely limited space available on a receipt or queuing number ticket, and effectively utilizing this advertising placement space is extremely important. If the target customers to whom an advertisement is provided can be identified, space for providing other advertising information to other target customers can be made available, and the advertising space can be used effectively.

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[0059]

However, there are both cases in which specifying the advertising target can be accomplished using each store system 3 and cases in which it cannot. That is, such identification is possible only in stores in which an operator can observe the customers and run a process whereby the customer age range or sex is entered from store register 50. The party applying for advertising placement must be made aware of such limitations when the application is made. This is why the advertising target line in Fig. 10 has the qualifier "with limitations." The form can also be designed so that clicking this displays a list of limited items, area limitations, or stores with limitations.

[0060]

The advertising placement information 83 is entered after the above input is completed. This information could be a text entry, for example. The example in text entry box 85 shows text for advertising event information about a go tournament. The information can be entered in the format desired for the actual display, or the actual display format could be specified according to particular rules. The advertising placement information 83 could also be image information. In this case the image input box 87 is used for input. Attaching an image is preferably accomplished by, for example, displaying a file directory when check box 86 in the image input part is pointed to so that a previously generated file can be attached.

[0061]

Various methods can be used for sending the attached image file to application server 1; a method using FTP and a method using e-mail are shown in this example. In the case of FTP transfers, the image input box 87 is linked to the ID and password of FTP server 16 of application server 1 so that the file attached by image input box 87 is sent to the FTP server 16. In the case of e-mail, too, the image input box 87 is linked to the mail address of the application server 1, and the file attached by image input box 87 is sent as a file attachment to an e-mail message. Alternatively, the FTP server 16 ID and password are disclosed on the application page 13 and an applicant ID is assigned, and the applicant separately transfers the file

using an FTP application in a process separate from the application page 13. It is also possible to disclose the e-mail address of the application server 1 so that files are sent attached to e-mail messages in a process separate from the application page 13.

[0062]

Next, the font size of the text entered as the advertising placement information is specified. This is also preferably accomplished by displaying a selection box. It is also possible to enable specifying the display size of an image. In this case, too, a specific size can be selected from a selection box. Finally, it is also possible to enable specifying the color of the text font and the color of the image. For example, monochrome, color printing, or a particular color could be selected from a selection box. When the above input operations are completed, the input data is sent to application server 1 as the application information and advertising information (S104).

[0063]

(Advertisement application process: (3) receiving application information and advertising information, and fee calculation process)

When the application server 1 receives the application information and advertising placement information (collectively referred to as the application information below) sent from client 5 (S203 returns yes), the application information is stored appropriately to the content to customer management storage means 22, received order storage means 23, placement information storage means 24, and advertisement managing information means 25 (S204). The advertising fee payment process has not been completed at this time, and data is therefore stored temporarily.

[0064]

Next, a fee calculation process is run to calculate the advertising fee (S205). The fee calculation process is calculated by fee calculating means 26 based on such conditions as the management data stored to advertisement managing information storage means 25, including the advertising period, advertising area, and the advertising target, and whether the advertising placement information stored to placement information storage means 24 is an image, text, or requires color. When the fee calculation process ends, the

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WWW server 11 sends transaction processing page 14 containing the advertising fee to client 5 (S206).

[0065]

When client 5 receives transaction processing page 14 (S105), the method of paying the advertising fee is specified and other specific input is entered according to the input instruction form (S106). An exemplary transaction processing page 14 is shown in Fig. 11. First, either credit card or cash is selected as the payment method using check box 90 or 91. If payment by credit card is selected, the credit card number is entered to entry box 92. The credit card number is preferably encrypted for transmission. Encryption in this case can be accomplished by, for example, a public key encryption method.

[0066]

If payment by cash is selected, the place where payment will be submitted is selected using entry box 93. In this case it is preferable to open selection box 95 by pointing to check box 94 as shown in Fig. 11 so that one of plural payment methods can be selected, including payment by postal account transfer, payment at a local convenience store or bank, or payment by check. When entering the transaction processing information is completed, client 5 sends the transaction processing information to application server 1 (S107).

[0067]

When the application server 1 receives the transaction processing information (S207 returns yes), application managing means 21 of application management server 20 confirms payment by credit card or cash (S208). If by credit card, the validity of the credit card is confirmed using the CAT system, for example (S210). If the credit card is authorized (S211 returns yes), a payment process is run (S212) to formally register the advertising application. This authenticates the advertising application and confirms storage to the storage means 22 to 25 of application management server 20 (S213). A credit card transaction voucher and receipt are then sent from mail server 15 (S214), the process branches to A in Fig. 12, and a process for sending the advertising information to central computer 2 or subscriber store systems 7, 8 is accomplished.

[0068]

If the credit card validation process (S210) determines that the credit card is not valid (S211 returns no), a process for deleting the application is accomplished (S215). This application deleting process deletes storage to the storage means 22 to 25 of application management server 20, and notifies by e-mail that the application was cancelled.

If the credit card is not valid it is also possible to inform the client 5 that the credit card was not valid so that another payment method can be selected without deleting the application.

[0069]

If payment by a method other than a credit card is selected (S208 returns no), a payment process and process to wait for confirmation of payment is performed (S209). More specifically, an invoice is sent by e-mail. It is also possible to enable downloading by FTP an invoice for payment sent to the applicant.

[0070]

The advertising applicant then makes payment to the closest branch (convenience store or other) of the selected store based on the invoice. When payment at the closest branch is completed, a notice of completion of payment is sent from the store system 3 to application server 20 [sic] through central computer 2 or a corporate network not shown in the figures. When payment is by postal transfer or check, the application management server 20 is similarly notified through central computer 2 or from another system through an in-house network (not shown in the figure). The application management server 20 registers payment for the application, and the application process stops until there is a notification of completion of payment.

[0071]

(Advertisement application process: (4) distributing advertising placement information to store systems)

A process for distributing advertising information to store system 3 from application management server 20 of application server 1 is described using Fig. 12. Fig. 12 is a flow chart showing a process for distributing

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advertising information from application server 1 through central computer 2 to store system 3.

[0072]

When payment of fees, etc., is completed, a payment completion notice is sent from store system 3, for example, to application server 1. When the payment completion notice is received (S220), or when payment is by credit card (branch A in Fig. 9), application management server 20 determines whether the advertising application contains subscriber store systems 7, 8 in the specified advertising area (S221). If subscriber store systems 7, 8 are not included, application management server 11 [sic] sends the advertising information to central system 2 (S222). When central computer 2 receives the advertising information (S250), it confirms the advertising area selection information in the advertising information and extracts the store system 3 to which distribution is indicated (S251), and then distributes the advertising information to the corresponding store system 3 (S252). The store server 41 of the store system 3 that received the advertising information (S300) stores the advertising information and advertising management information to storage device 43 (S301).

[0073]

Preparing the store system 3 to print advertising placement information on receipts, for example, by means of store register 50 is thus completed. The advertising period and advertising times, etc., are managed according to the advertising management information. The advertising period can be managed by application management server 11 [sic], or by both store server 41 and application management server 11 [sic].

[0074]

If subscriber store system 7 is included in the advertising area, transmission to the subscriber store system 7 is through Internet 10 and server 4 (S223). Transmission can be accomplished by FTP or other file transmission protocol. If the subscriber store system 8 has a central computer (see Fig. 1), the same process as for distribution from central computer 2 to store system 3 is accomplished.

(Accounting process and advertising placement information printing process: (1) fixed selection input display)

Printing advertising placement information is described using Fig. 13. Fig. 13 is a flow chart of a process of the store system 3 using POS terminal 51 shown in Fig. 6 as store register 50 from input of the accounting information to printing this transaction information and placement information on a receipt.

[0075]

When a customer requests to pay for purchased products (accounting process) at POS terminal 51, the operator (clerk) first enters the customer's sex, age range, and other customer information from printer 53, and the CPU 60 of POS terminal 51 receives the input (S400). Next, CPU 60 displays a specific list of advertising information on information selection device 54 to enable selection entry (S401).

[0076]

An exemplary display of an advertising information list displayed on information selection device 54 is shown in Fig. 15. A transaction amount 76 is displayed on the top line of the display screen 75 of information selection device 54. This transaction amount is the transaction total accumulated each time a purchase transaction is registered. Reference numeral 77 in the figure is an advertising information list. Selections 1 to 7 are available in this example. The customer can select one or a plurality of the desired items. Various selection entry means could be used. In this exemplary embodiment, however, the display screen is a touch screen so that when list entries are presented in a matrix in this example the customer can simply touch the desired item to make a selection.

[0077]

Returning to the process flow in Fig. 13, after step S401 CPU 60 accepts input of the product identification information and product quantity information by means of bar code reader 57 and operator keyboard 52 (S402), and sends this identification information through interface 59 to store server 41 (S403).

When the server 41 receives the product identification information via interface 45 (S310), it finds the product price in the product database stored to storage device 43 (step S311), and sends this price information via interface 45 to the POS terminal 51 (S312). A product registration process

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for the purchased product is then accomplished (S313), and the next product transaction process is awaited (S310).

[0078]

POS terminal 51 receives the product price information through interface 59 (S404), and displays the price information on operator display 56 and information selection device 54 or a customer display unit (not shown in the figure) (S405).

[0079]

In addition, it is then determined whether entering product identification information has been completed (S406). Entering the product identification information has been completed if, for example, the operator presses a total key on the keyboard 52.

[0080]

If data entry is not over (step S406 returns no), the procedure loops back to step S402. If data entry is over (step S406 returns yes), CPU 60 confirms whether the customer has selected information from information selection device 54 (S407); if a selection has been made, the selected input information is sent through interface 59 to store server 41 (S408).

[0081]

When the store server 41 receives the selection input information through interface 45 (S320 returns yes), the specified placement information is sent to POS terminal 51 through interface 45 (S321). CPU 60 of POS terminal 51 then receives the advertising placement information through interface 59 (S409).

[0082]

The POS terminal 51 then combines the advertising placement information received in step S409 and the transaction information generated in steps S402 to S405 to generate the print data (S410), prints a receipt by means of printer 53 (S411), and the printing process then ends. More specifically, various methods of combining the information are possible, including setting aside an advertising information printing area on the receipt and printing the advertising information placed in this area, or first printing the advertising information and then printing the transaction information.

[0083]

Print samples of a receipt or queuing number ticket are shown in Fig. 16 to Fig. 19.

[0084]

Fig. 16 shows an exemplary receipt having advertising placement information printed below the transaction data. Fig. 17 shows another receipt likewise having the advertising information printed below the transaction information, but in this case plural blocks of advertising information are printed reduced. It is thus also possible to enable plural selections with each selection printed reduced in size.

[0085]

Fig. 18 shows an example in which the advertising information is printed at the top of the receipt, and Fig. 19 shows an example in which the advertising information is printed on a queuing number ticket.

(Accounting process and advertising placement information printing process: (2) no customer selection)

In Fig. 13 the information desired by a customer is selected using information selection device 54, but it is also possible to automatically print particular information without having the customer select the advertising placement information. A configuration such as this does not need to wait for a customer selection, and thus has the advantage of faster processing. This is particularly effective in a queuing number issuing system.

[0086]

It is also possible with POS terminal 51 for store server 41 to select and print the best advertising placement information according to the customer's sex, age range, or occupation or other entered customer information. For example, the CPU 42 of store server 41 could compare the customer information with advertising target information stored to storage device 43 to select the information for which the advertising target information and customer information match, and thus print the best information.

If there are plural satisfied conditions, it is also possible to select any one appropriate condition randomly or according to the frequency of use, for example.

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(Accounting process and advertising placement information printing process: (3) changing the selection list to match customer information)

Next, a process for changing the list of information selectable by a customer according to the customer class is described using Fig. 14. Fig. 14 shows process steps replacing steps S400 and S401 of the POS terminal 51, and shows a new process not in Fig. 13 for the store server 41.

[0087]

The CPU 60 receives customer information entered by the operator when a customer requests a transaction using the same process shown in Fig. 13 (S400). When customer information is received, CPU 60 sends customer information through interface 59 to store server 41. When store server 41 receives the customer information through interface 45 (S330 returns yes), it finds advertising placement information (selection list) having the advertising placement conditions satisfied by the customer information (S331).

[0088]

When the search ends, a list of selectable placement information extracted by the search is sent through interface 45 to POS terminal 51 (S332). POS terminal 51, having received the selection list from store server 41 (S431), displays the selection list on information selection device 54, enabling the customer to select an entry (S432). Processing then continues from branch C from step S402 in Fig. 13.

[0089]

It is thus possible to provide more appropriate advertising information by displaying as a selection list only advertising information suitable to the advertising target.

It should be noted that the above description explains a system whereby an undetermined number of people can via the Internet access the application server and apply, but a configuration enabling only members to apply is also possible.

[0090]

Furthermore, home page access shall not be limited to the WWW, and gopher or other means are also possible.

[0091]

[Effect of the invention]

As described hereinabove, it is possible according to the present invention for an undetermined number of people to freely apply for advertising placement via the Internet 10. By using a system or method according to the present invention, applying for advertising placement can be accomplished very quickly and easily. Furthermore, distributing advertising placement information to various store networks already in place can be efficiently accomplished with the present invention, and updating the advertising information is also easy. Moreover, it is also possible to specify a particular area by specifying the advertising area at the level of specific stores. Furthermore, it is possible to provide and place advertisements to meet a wide range of user needs, from advertising for an extremely short period of time to pinpoint advertising.

[Brief description of the drawings]

Fig. 1 shows a first example of a network used in the present invention.

Fig. 2 shows an example of the basic configuration of an application server system 1.

Fig. 3 shows the appearance of a client system 5.

Fig. 4 is a function block diagram of client system 5.

Fig. 5 shows an example of the configuration of store system 3.

Fig. 6 shows a convenience store POS terminal 51 as an example of a store register 50.

Fig. 7 is a block diagram showing the basic configuration of POS terminal 51 in greater detail.

Fig. 8 shows a queuing number issuing device 65 such as used in banks, securities companies, or hospitals as another example of a store register 50.

Fig. 9 is a flow chart for describing the advertising placement application process of the client system 5 and application server system.

Fig. 10 shows an example of an application page 13 sent from application server 1.

Fig. 11 shows an example of a transaction processing page 14.

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Fig. 12 is a flow chart showing a process for distributing advertising information from application server 1 through central system 2 to store system 3.

Fig. 13 is a flow chart showing the flow of a process whereby accounting information is entered and printed together with placement information on a receipt in a store system 3 using POS terminal 51 shown in Fig. 6 as store register 50.

Fig. 14 is a flow chart showing process steps replacing steps S400 and S401 on the POS terminal 51 side in Fig. 13.

Fig. 15 shows an exemplary display of an advertising information list presented on an information selection device.

Fig. 16 shows an exemplary receipt having advertising information printed below the transaction data.

Fig. 17 shows an exemplary receipt having plural blocks of advertising information printed below the transaction information with the advertising information reduced in scale for printing.

Fig. 18 shows another example in which the advertising placement information is printed above the transaction information.

Fig. 19 shows an exemplary queuing number ticket having advertising information printed below the queuing number.

[Key to the figures]

- 1 application server system
- 2 central computer
- 3 store system
- 4 server
- 5 client system
- 6 subscriber store server
- 7 subscriber store system
- 8 central subscriber store system
- 10 Internet
- 11 WWW server
- 13 application page
- 14 transaction processing page
- 15 mail server

16 FTP server
20 application management server
30 PC
31 PC keyboard
32 mouse
33 scanner
34 PC display
38 browser
39 e-mail software
40 FTP application
41 store server
43 store server storage device
50 store register
51 POS terminal
52 POS keyboard
53 printer
54 information selection device
65 queuing number issuing device
66 display part
68 large-scale display
70 receipt
71 queuing number ticket
75 display screen
76 transaction amount
77 advertising information selection display

[Document name] Abstract

[Abstract]

[Problem]

To provide an advertising placement processing method and system enabling the information placement application process to be accomplished over the Internet, the system being a system for placing various information, including advertisements, introductions, event announcements, help wanted ads, looking to buy notices, announcements,

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and requests for assistance, on receipts issued from a POS terminal, vouchers issued by a kiosk terminal, and queuing number tickets issued from queuing number issuing devices in banks, for example.

[Means for solving the problem]

Information relating to the advertising application, advertising information, and advertising fee payment information is sent from a client system via the Internet to a server system; the server system calculates fee information according to the received advertising information, and sends it via the Internet to the client system. After confirming completion of the payment process, the server system sends the advertising information to a central system, and the central system distributes the received advertising information to the plural POS systems connected to the central system. A store POS system that receives the advertising information prints the advertising information together with the transaction information for the purchased products on the receipt issued during the customer purchase transaction process.

[Selected figure] Fig. 2

TEXT IN THE FIGURES

FIG. 1

CLIENT 5A

CLIENT 5B

CLIENT 5C

SERVER 4

SUBSCRIBER SERVER 6

CENTRAL SUBSCRIBER STORE SYSTEM 8

STORE SYSTEM 3D

STORE SYSTEM 3E

STORE SYSTEM 3F

SERVER 4

CLIENT 5D

CLIENT 5E

SUBSCRIBER STORE SYSTEM 6

SUBSCRIBER STORE SYSTEM 7

SUBSCRIBER STORE SYSTEM 7
APPLICATION SERVER 1
CENTRAL COMPUTER 2
STORE SYSTEM 3A
STORE SYSTEM 3B
STORE SYSTEM 3C

FIG. 2

INTERNET 10
APPLICATION MANAGEMENT SERVER 1
CLIENT 5
 BROWSER
 MAILER
 FTP
SUBSCRIBER STORE SYSTEMS 7, 8
WWW SERVER 11
SERVER ENGINE 12
APPLICATION PAGE 13
MAIL SERVER 15
FTP SERVER 16
CENTRAL COMPUTER 2
APPLICATION MANAGEMENT SERVER 20
APPLICATION MANAGING MEANS 21
CUSTOMER MANAGEMENT STORAGE MEANS 22
RECEIVED ORDER STORAGE MEANS 23
PLACEMENT INFORMATION STORAGE MEANS 24
ADVERTISEMENT MANAGING INFORMATION STORAGE MEANS 25
FEE CALCULATING MEANS 26

FIG. 4

DISPLAY 34
PRINTER 35
DISK DRIVE 36
PC 30

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KEYBOARD 31
MOUSE 32
SCANNER 33
MODEM 37
TO PROVIDER SERVER

FIG. 5
CENTRAL COMPUTER OR NETWORK COMPUTER
INTERFACE 44
CPU 42
INTERFACE 45
STORE SYSTEM 3

FIG. 7
KEYBOARD 52
PRINTER 53
INFORMATION SELECTION DEVICE 54
CASH DRAWER 55
CPU 60
OPERATOR DISPLAY 56
BAR CODE READER 57
CARD READER 58
INTERFACE 22
STORE SERVER 41

FIG. 9
CLIENT SYSTEM 5
S101 REQUEST TRANSMISSION OF ADVERTISING APPLICATION
PAGE
S102 RECEIVE APPLICATION PAGE
S103 ACCEPT INPUT OF APPLICANT INFORMATION AND
ADVERTISING INFORMATION ACCORDING TO THE
APPLICATION PAGE

S104 SEND APPLICATION INFORMATION AND ADVERTISING
INFORMATION

S105 RECEIVE TRANSACTION PROCESSING PAGE

S106 ACCEPT INPUT OF TRANSACTION PROCESS INFORMATION

S107 SEND TRANSACTION INFORMATION

APPLICATION SERVER SYSTEM 1

S201 TRANSMISSION OF ADVERTISING APPLICATION PAGE
REQUESTED?

S202 RECEIVE APPLICATION PAGE

S203 APPLICATION INFORMATION, ETC., RECEIVED?

S204 STORE APPLICATION INFORMATION

S205 ADVERTISING FEE CALCULATION PROCESS

S206 SEND TRANSACTION PROCESS PAGE

S207 TRANSACTION INFORMATION RECEIVED?

S208 PAYMENT BY CREDIT CARD?

S209 WAIT FOR PAYMENT CONFIRMATION PROCESS

S210 CARD VERIFICATION PROCESS

S211 CARD VALID?

S212 PAYMENT PROCESS

S213 FINALIZE APPLICATION TRANSACTION

S214 SEND E-MAIL

S215 DELETE APPLICATION PROCESS

END

A -> TO FIG. 11

FIG. 10

APPLICATION TO PLACE ADVERTISEMENT

PLEASE ENTER YOUR CUSTOMER INFORMATION, ADVERTISING
PLACEMENT INFORMATION, PLACEMENT AREA, AND
ADVERTISING PERIOD.

CUSTOMER INFORMATION 81

NAME

ADDRESS

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TELEPHONE NUMBER
E-MAIL ADDRESS
ADVERTISEMENT MANAGING INFORMATION 82
ADVERTISING AREA
ADVERTISING PERIOD
ADVERTISING TARGET (WITH LIMITATIONS)
SEX
AGE
TIME PERIOD
ADVERTISING PLACEMENT INFORMATION 83
TEXT ENTRY
GO TOURNAMENT
NAMIDA COMMUNITY CENTER
NOVEMBER 23
FOR INFORMATION CALL XXXXXX
IMAGE ATTACHMENT
FONT SIZE
IMAGE DISPLAY SIZE
COLOR

FIG. 11

PAYMENT OF ADVERTISING FEE

THE FEE FOR THE ADVERTISEMENT YOU HAVE APPLIED TO
PLACE IS SHOWN BELOW. PLEASE SELECT YOUR PAYMENT
METHOD.

FEE XXXXXX

PAYMENT METHOD

CREDIT CARD CASH

CREDIT CARD NUMBER

CASH

1. POST OFFICE TRANSFER
2. AT LOCAL CONVENIENCE STORE
3. CHECK

PAYMENT DUE BY: XX YEAR XX MONTH XX DAY

YOUR APPLICATION WILL BE CANCELLED IF PAYMENT IS NOT
RECEIVED BY THE DUE DATE.

FIG. 12

APPLICATION SERVER SYSTEM

S220 NOTIFICATION OF PAYMENT RECEIVED

S221 SUBSCRIBER STORES?

S222 SEND ADVERTISING INFORMATION TO CENTRAL SYSTEM

S223 SEND TO SUBSCRIBER STORES VIA INTERNET

CENTRAL COMPUTER

S250 RECEIVE ADVERTISING INFORMATION

S251 EXTRACT STORES FOR DISTRIBUTION

S252 DISTRIBUTE TO BRANCH STORES

STORE SYSTEM

S300 RECEIVE ADVERTISING INFORMATION

S301 STORE ADVERTISING INFORMATION AND MANAGEMENT
INFORMATION

FIG. 13

POS TERMINAL

ACCOUNTING PROCESS

S400 RECEIVE CUSTOMER INFORMATION

S401 DISPLAY SELECTION INFORMATION, ENABLE SELECTION

S402 RECEIVE PRODUCT IDENTIFICATION INFORMATION AND
QUANTITY

S403 SEND PRODUCT IDENTIFICATION INFORMATION AND
QUANTITY

S404 RECEIVE PRODUCT PRICE

S405 DISPLAY PRODUCT PRICE AND QUANTITY

S406 INPUT COMPLETED?

S407 DESIRED PRINT INFORMATION SELECTED?

S408 SEND SELECTION INFORMATION

S409 RECEIVE SELECTED PLACEMENT INFORMATION

S410 GENERATE PRINT DATA

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S411 PRINT RECEIPT
S412 FORCE COMPLETION OF SELECTIONS?
S413 FORCE SELECTION
STORE SERVER
ACCOUNTING PROCESS
S310 PRODUCT IDENTIFICATION INFORMATION RECEIVED?
S311 FIND PRODUCT PRICE
S312 SEND PRODUCT PRICE
S313 PURCHASED PRODUCT REGISTRATION PROCESS
STORE SERVER
TRANSMISSION PROCESS FOR INFORMATION TO PLACE ON
RECEIPTS
S320 SELECTION INFORMATION RECEIVED
S321 SEND PLACEMENT INFORMATION SPECIFIED BY SELECTION
INFORMATION

FIG. 14

ACCOUNTING PROCESS
S400 RECEIVE CUSTOMER INFORMATION
S401 SEND CUSTOMER INFORMATION
S431 SELECTION LIST RECEIVED?
S432 DISPLAY SELECTED INFORMATION
STORE SERVER
SELECTION LIST TRANSMISSION PROCESS
S330 CUSTOMER INFORMATION RECEIVED?
S331 FIND INFORMATION SATISFYING SPECIFIC CONDITIONS
S332 SEND CORRESPONDING SELECTION LIST

FIG. 15

YOUR TOTAL
PLEASE SELECT THE DESIRED INFORMATION TO BE PRINTED ON
YOUR RECEIPT.
1. FLEA MARKET
2. 100-YEN FAIR

3. COMMUNITY SPORTS FESTIVAL
4. GO TOURNAMENT
5. KARAOKE COMPETITION
6. CLASSIFIED ADS
7. LECTURE

FIG. 16

RAINBOW CONVENIENCE STORE

MILK 198

EGGS200

BREAD 150

SUBTOTAL: 548

CONSUMPTION TAX:

TOTAL

GO TOURNAMENT AT NAMIDA COMMUNITY CENTER

NOVEMBER 23 AT 10:00 A.M.

FREE

FOR INFORMATION CALL XXXX

FIG. 17

RAINBOW CONVENIENCE STORE

TOTAL

GO TOURNAMENT

KARAOKE COMPETITION

100-YEN SHOP FAIR

FIG. 18

RAINBOW CONVENIENCE STORE

GO TOURNAMENT AT NAMIDA COMMUNITY CENTER

NOVEMBER 23 AT 10:00 A.M.

FREE

FOR INFORMATION CALL XXXX

MILK 198

EGGS200

• •

BREAD 150
SUBTOTAL: 548
CONSUMPTION TAX:
TOTAL

FIG. 19
SERVING NUMBER
XXXX
GO TOURNAMENT